



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,008	11/15/2000	Johann Engelhardt	102847-28	1885

29127 7590 04/26/2004

HOUSTON ELISEEVA
4 MILITIA DRIVE, SUITE 4
LEXINGTON, MA 02421

EXAMINER

FERNANDEZ, KALIMAH

ART UNIT	PAPER NUMBER
----------	--------------

2881

DATE MAILED: 04/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/681,008

Applicant(s)

ENGELHARDT, JOHANN

Examiner

Kalimah Fernandez

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,8 and 10-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2,4-6,8 and 10-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Remarks section, filed 3-22-04, with respect to "confocal scanning microscope" have been fully considered and are persuasive. The final rejection of 11-21-03 has been withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2,4-6,8, and 10-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,532,874 issued to Stein, US Pat No. 6,201,639 issued to Overbeck, and further in view of US Pat No 6,342,349 issued to Virtanen.
4. Stein teaches a confocal scanning microscope for scanning a plurality of specimens (col.1, lines 7-15; col.2, line 65-col.3, line 12) wherein the

5. Stein does not teach the scanning device being rotatable. However, Overbeck teaches the desirability of a wide-scanning by rotating the scanning device (col.1, lines 4-50). Specifically, Overbeck teaches a confocal scanning microscope rotatable scanned over a specimen (see fig. 2; col.19, lines 59-65).

6. It would have been obvious to an artisan having ordinary skill at the time the invention was made to combine the teachings of Stein and Overbeck since Overbeck teaches the advantage of wide area scanning ability and the other advantages in col. 20, lines 10-15. The combination would have been obvious to such an artisan since Stein aims to improve scanning time and resolution (see col.1, lines 43-61) whereas Overbeck teaches improvement of scanning time and resolution (see col.1, lines 19-37 of Overbeck).

7. Finally, neither Stein or Overbeck explicitly teach a carousel insert, however Virtanen teaches the use of a carousel insert (see col.62, lines 47-62).

8. It would have been obvious to an artisan having ordinary skill at the time the invention was made to incorporate the teachings of Virtanen into the obvious combination of Stein and Overbeck since Virtanen teaches a

simple, versatile sample receiving device which enable both efficient analysis and the ability to test a large number of specimens in a single step (col.2, lines 44-50). In addition, Stein draws the parallel between optical disk drive technology and confocal microscopy (see col.3, lines 22-29) whereas Virtanen teaches the technological parallel in col.48, lines 41-45. Thus an ordinary artisan would have both an obvious motivation and a reasonable expectation of a successful combination.

9. As per claim 2, the obvious combination teaches a resulting relative linear motion by rotation of the scanning device in a first radial direction (as in Overbeck's fig. 2) and by rotation of the specimen-receiving device in a second radial direction (see fig.4 of Stein; col.3, lines 43-47).

10. As per claim 4, Stein teaches the optical distance between the scanning device and specimen-receiving device remain constant during the imaging phase (col.5, lines 56-65).

11. As per claim 5, Stein teaches the rotation control of the specimen-receiving device is dependent on the mode of operation (col.3, lines 9-23).

12. As per claim 6, Stein teaches the rotation control of the specimen-receiving device is dependent on the data (col.3, lines 30-41).

13. As per claims 8 and 10, Virtanen teaches a single replacable vessel and individual specimen holders (col. 61, lines 15-26; col.62, lines 11-16).
14. As per claims 11-12, Virtanen teaches the carousel insert positioning the sample wells/holders by a retaining means or resiliently (col.62, lines 50-62).
15. As per claim 13, Stein teaches an autofocusing means (col.5, lines 16-20).
16. As per claim 14, Stein teaches a deviation of 5 microns (col.5, lines 26-32).
17. As per claim 15, Stein teaches a laser and fluorescent light detection (col.2, lines 17-39). In addition, Overbeck teaches fluorescent light detection (col.18, lines 40-65; col.20, lines 6-9).
18. As per claim 16, Stein teaches the laser beam scans in at least one direction (col.3, lines 4-10).
19. As per claim 19, Stein teaches a focus region of less than 40 microns (col.3, lines 14-16).
20. As per claim 20, Stein teaches a lateral focus region between 5-200 microns (col. 6, lines 1-9).

21. As claims 17-18 and 21, Overbeck teaches a stationary embodiment having a non-zero incidence angle (see fig.5; col.11, lines 40-47). It would have been obvious to a person having ordinary skill at the time the invention was made to modify Stein with the teachings of Overbeck since Overbeck teach the improved focusing (col.11, lines 50-67). In addition, Overbeck teaches the use of different wavelengths.

22. As per claim 22, Virtanen teaches synchronization markers (col.62, lines 56-63).

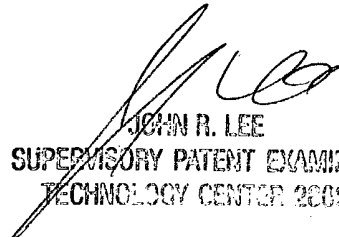
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalimah Fernandez whose telephone number is 571-272-2420. The examiner can normally be reached on Mon-Tues 6:30-3:30; Wed-Thurs 8-5 and Fri.9am-6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kf


JOHN R. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2009